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## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Kazue SAKO  
Title: ELECTRONIC TENDER SYSTEM  
Appl. No.: 09/472,900  
Filing Date: 28 December 1999  
Examiner: M. FISHER  
Art Unit: 3629

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 (Signature)	

**REPLY BRIEF UNDER 37 CFR 1.193**

Mail Stop: Appeal Brief- Patents  
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Sir:

Applicant submits this Reply Brief in response to the Examiner's Answer issued on 21 September 2004.

The Examiner's Answer asserts a claim interpretation that is unreasonable in view of the claim language itself and the description of the invention provided in the application. In this Reply Brief, Applicant highlights the errors that lead to this unreasonable interpretation and propose a reasonable interpretation that is consistent with the claims and the description in the application. A revised grouping of the claims is also requested in view of grounds of rejection that are explained for the first time in the Examiner's Answer.

**1. Summary of the claimed subject matter, the basis of the rejections and their errors**

The claimed subject matter relates to a scheme for encoding and decoding bids. The scheme involves the use of “code parameters” and “decode parameters” (such as public and private keys) to encode bids and later decode those bids in a manner that only reveals the contents of the winning bid(s). A key feature is that there is a different code parameter (and corresponding decode parameter) for each bid amount. This facilitates an iterative bid-opening process that fails to open all but the winning bid(s), thus keeping other bids secret.

The Examiner’s Answer rejects all claims over a reference that bears no resemblance to the invention. To justify the rejection, the Examiner’s Answer focuses on the claim term “code” (rather than the actual phrase “code parameter”), declares that “code” could refer to the well-known ASCII code that is used to represent characters, adopts that meaning for the term “code parameter,” and then treats the claims as though they recite nothing more than using ASCII characters to represent bids in a bidding system. In doing so, the rejections eliminate fundamental features of the invention and give superficial or no treatment to other significant limitations of the claims.

All rejections hinge on the interpretations given to the terms “code parameter” and “decode parameter.” Applicant respectfully submits that the asserted interpretations of these terms are unreasonable, and request the Board to adopt the more reasonable interpretations set forth below.

Further, the claims do not make logical sense when using the asserted interpretations. This is submitted as further proof that the asserted interpretations cannot be correct.

In addition, claims such as claims 1 and 10 describe an iterative decoding process that is used to identify a winning bid. The rejections make no attempt to locate such a process in the cited art, and there is no such process in the cited art. This claim and its dependent claims are allowable on this additional basis.

Further, the rejections fail to apply the appropriate analysis to dependent claims that specify that the code parameters and decode parameters are public and private keys, respectively. These claims are allowable apart from their independent claims on the basis of these features.

## **2. Request for revised grouping of claims**

The Examiner's Answer disagreed with the grouping of claims requested in the Appeal Brief. In addition, the Examiner's Answer provides, for the first time in the prosecution of this application, an explanation of how the examiner equates the claimed code parameters and decode parameters with simple ASCII characters. This requires Applicant to highlight the distinction between the alleged meaning of "code parameter" and "decode parameter" and the specific meanings given for those terms in several of the dependent claims.

In light of these circumstances, Applicant respectfully requests a revision of the grouping of claims. Strictly speaking, Applicant submits that the claims should be grouped as follows:

Claims 1, 2, 5 and 6.

Claims 3, 4, 7 and 8.

Claim 9.

Claim 10.

Claims 11-12.

Claims 13-14.

For practical purposes, the arguments concerning "code parameter" and "decode parameter" are relevant to all claims, while the arguments concerning public keys and private keys are relevant to dependent claims 3-4, 7-8 and 11-14.

**3. Applicant's proposed interpretations of the disputed claim language**

First, Applicant submits that the terms "code parameter" and "decode parameter" are not terms of art that have a common meaning. The rejection addresses the meaning of the term "code" in a vacuum and assumes without justification that the term "code parameter" has the same purported meaning. The rejection does seek or consider whether there is any conventional meaning for the actual phrase "code parameter," and there is nothing in the cited art or the record (other than the application itself) to establish any conventional meaning for this term. It is submitted that in the absence of any evidence to establish that there is a conventional meaning in the field of the invention for the term "code parameter" and the corresponding term "decode parameter," the meanings of these terms must be determined with reference to the technology that they have been created to describe.

Accordingly, Applicant respectfully submits that the term "code parameter" describes something that is used to encode data in a manner that hides the original data. This is consistent with the examples in the specification, in which public encryption keys are used as code parameters to code bids before they are submitted.

Similarly, Applicant submits that the term "decode parameter" describes something that is used to reverse the encoding process to reveal the original data that was previously hidden in an encoded form. This is consistent with the examples in the specification, in which private encryption keys are used as decode parameters to decode received bids.

**4. Applicant's proposed interpretation is reasonable, whereas the interpretation of the rejection is not**

The source of the error in the Examiner's Answer is revealed in its response to Applicant's arguments. In section 11, entitled "Response to Argument" (page 6), the Examiner's Answer states:

“While the claims are to be interpreted in light of the specification, they are given their broadest **possible** interpretation by the examiner.” (emphasis added)

This statement reveals the misconception that underlies the rejections. Claims are not to be given their broadest **possible** interpretation, rather, they are to be given their broadest **reasonable** interpretation. The MPEP repeatedly quotes case law to emphasize that claim interpretations must be reasonable, including the following:

During patent examination, the pending claims must be “given their broadest **reasonable** interpretation **consistent with the specification.**” MPEP 2111

**Claims are not to be read in a vacuum**, and limitations therein are to be **interpreted in light of the specification** in giving them their broadest **reasonable** interpretation. MPEP 2111.01

It is “possible” to interpret the claims in the asserted manner if one completely ignores the invention that the claims are meant to describe, but it is not reasonable to do so, since this is exactly the reading of claims “in a vacuum” that the MPEP prohibits. The examiner is not free to strip the claim terms of their context before interpreting them. Therefore, although ASCII is in some ways a code, that does not make it reasonable to read the claim term “code parameter” as encompassing ASCII characters and treating the claims as though they simply describe the use of ASCII characters to represent bids. As indicated by the aforementioned case law, it is proper to refer to the specification to determine whether a proposed interpretation is reasonable. Referring to paragraphs 22-27 and 28-33 (substitute specification), the specification gives examples of code parameters based on the El Gamal (i.e. public key) encryption algorithm and the RSA encryption algorithm. The purpose of these code parameters is to perform an encoding that hides the data (i.e., bids) that they are used to encode. Thus the Summary of the Invention provided at paragraph 10 states that:

“The use of code parameters and decode parameters that correspond to candidate contract prices allows a bid price to be known only if the bid is identical to a contract price candidate.”

If the “code parameter” of the claims referred to ASCII characters, then the aforementioned examples and summary would make no sense. ASCII is the global standard for character representation, and a bid that is represented by ASCII characters is not hidden at all. Representing bids in their naked ASCII characters would be contrary to the basic goals and specific examples provided in the application.

This problem carries through to other language in the claims. For example, independent claims 1, 9 and 10 all refer to “encoded bids” that are either being received or transmitted. In the field of the invention, where secrecy of bids is an important concern (see Background of the Invention), it is unreasonable to assert that one of ordinary skill would consider a bid represented by ASCII characters to be an “encoded bid.” Rather, one of ordinary skill would understand “encoded” to mean that the bid that has been processed in some manner so as to hide its contents.

Therefore the claim interpretation asserted in the rejections is not reasonable and should not be adopted by the Board.

##### **5. The asserted interpretations are logically inconsistent with the claims themselves**

Applicant submits that an interpretation cannot be correct if it does not make sense within the claim itself. Consider claim 1. If it is assumed for the sake of argument that the term “code parameter” refers to ASCII characters that are used to represent a bid, then what is the “decode parameter” referred to later in the claim? If the bid is represented by ASCII characters, why is it necessary to decode it in order to determine its value as required by claims 1 and 10? What is the result of decoding an ASCII character? Why would the system attempt to decode these ASCII characters using a succession of supposed ASCII decode parameters (claims 1 and 10), when the ASCII characters themselves would directly provide the

information needed (i.e., the amount of each bid). The Examiner's Answer fails to consider any of these questions. In fact, these questions show that the asserted interpretations render the aforementioned decode-related features meaningless. Applicant submits that such an interpretation cannot be correct.

**6. The rejection does not address the iterative decoding process of claims 1 and 10**

Claims 1 and 10 describe the manner in which received bids are processed to determine a winning bid. Each claim specifies a process by which contract price candidates are selected in successive order, and the decode parameter corresponding to each contract price candidate is applied to all bids to determine whether any of the bids can be successfully decoded (and thus has the value of the corresponding contract price candidate). This is a manner of operation that is not taught in the cited art (see Applicant's comparison of the claims to the cited art in Applicant's Appeal brief), and the superficial treatment of these features in the rejections (see Examiner's Answer, page 5) fails to give them any meaningful weight or consideration. Thus the rejections do not provide a sufficient basis for rejecting the claims containing these features.

**6. Independent claims 1, 9 and 10 are allowable**

The independent claims recite operations performed using code parameters and decode parameters, and operations that create or operate on encoded bids. When interpreted in a reasonable manner, it is clear that there are significant distinctions between the claimed subject matter and the cited art (see Applicant's comparison of the claims to the cited art in Applicant's Appeal brief). Therefore it is respectfully submitted that the independent claims are allowable over the cited art.

**7. Additional bases for allowability of the dependent claims**

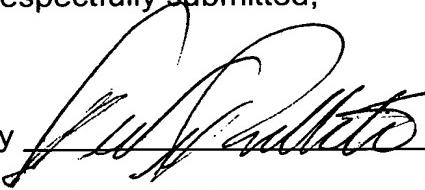
Even assuming for argument that the rejections of the independent claims are correct, it is still improper to reject the dependent claims, particularly claims 3-4 and 11-14 which specify the use of public and private keys as code parameters and decode parameters, respectively. The rejections essentially ignore these claims, rejecting them summarily on the assertion that "public and private keys are disclosed." This is a wholly inadequate treatment. These claims specify that the code parameters and decode parameters of the independent claims are public and private keys, and so the rejection must examine whether the cited art uses public and private keys in the specific manner of the present claims. Specifically, the rejection must examine whether the cited art provides a different public key that corresponds to each bid amount, and encodes each bid using the public key that corresponds to that amount, and must further examine whether the cited art provides a different private key that corresponds to each contract price candidate, and attempts to decode all received bids using successive private keys corresponding to successive contract price candidates until one or more bids are successfully decoded. Applicant's reply brief provided a detailed explanation of the operation of the cited art which shows that the cited art does not use public and private keys in this manner. Applicant therefore asserts that at least dependent claims 3-4 and 11-14 are clearly distinguished from the cited art, and respectfully requests an indication of the allowability of these claims.

**8. Conclusion**

Applicant requests the Board of Appeals to overturn all prior art rejections for the reasons set forth above.

Respectfully submitted,

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